

**Petition No. 1071**  
**CMEEC**  
**4 Matlack Road, Norwich**  
**Staff Report**  
**August 9, 2013**

Pursuant to Public Act 12-148, An Act Concerning Emergency Preparedness, the Connecticut Department of Energy and Environmental Protection (DEEP) was instructed to “establish a microgrid grant and loan pilot program to support local distributed energy generation for critical facilities. The department shall develop and issue a request for proposals...to develop microgrid distributed energy generation, or to repurpose existing distributed energy generation for use with microgrids, to support critical facilities.” In response to a request for proposals (RFP) issued by DEEP, on January 3, 2013, William W. Backus Hospital (WWBH) in Norwich submitted a microgrid proposal to DEEP for consideration. WWBH was one of 32 proposals submitted for consideration. On July 24, 2013, nine of these projects were awarded grants. However, WWBH’s project was not selected for a grant. Notwithstanding, The Connecticut Municipal Electric Energy Cooperative (CMEEC) has plans to pursue the microgrid project. The only difference is in the method and path of electrical distribution connections.

On July 28, 2013, the Connecticut Siting Council (Council) received a petition (Petition) from CMEEC for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed installation of four 2.49 megawatt (MW) generating units at 4 Matlack Road, Norwich. As part of the microgrid project, in the event of a long term blackout, the generators would provide back-up power to Backus Hospital as a priority recipient and to other critical facilities based on their respective loads identified by Norwich Public Utilities (NPU), including a grocery store/pharmacy, gas station, emergency shelters, schools, doctors’ offices, municipal buildings, and several residential neighborhoods. The proposed generators could also be utilized to minimize peak demand on the regional power grid.

Specifically, the project consists of four 2.49 MW Cummins Power Systems diesel generators. These four generators were previously going to be installed at the 57 Salem Turnpike and 145 Old Salem Road sites in Norwich. CMEEC received its approval from the Council for these generator installations in Petition No. 893. However, on June 24, 2013, CMEEC provided notification of the withdrawal of the 57 Salem Turnpike and 145 Old Salem Road generator installations, which was acknowledged by the Council on July 11, 2013. Thus, the generators are available for use in this Petition.

The proposed generator site would be located on property owned by WWBH and located roughly 800 feet west of the WWBH campus. The subject property is zoned Neighborhood Commercial. The site is heavily wooded. To the north is a self-storage facility. To the south is a parking lot. To the east are railroad tracks and the Yantic River. To the west is residential. The nearest home is located on Farnham Court, nearly 400 feet to the northwest. The nearest wetlands are approximately 150 feet west of the proposed generator site. The site is located within the 500-year flood plain. The visual impact is expected to be minimal given the existing trees surrounding the site. The number of trees six inches or greater in diameter to be removed is on the order of 15. No landscaping is proposed given that the generator site is wooded on all sides.

The proposed site is within a Neighborhood Commercial zoning district, and the proposed generators are a permitted use by the City of Norwich zoning ordinances. The City also confirmed that no local wetland or floodplain approvals are required for construction of the project.

The proposed generators would be designed to ensure that the applicable noise limits are not exceeded at the nearest receptors. This holds true to several existing generators installed by CMECC having received no complaints about noise. The units are self-contained, require no makeup water, and have an air-cooled radiator system. The generators would utilize low-sulfur diesel fuel and selective catalytic reduction (SCR) devices to ensure compliance with any applicable emissions standards. The SCR installations and applicable emissions standards result in each generator's air emissions stack having a height of approximately 37 feet above grade. There would also be two 3,050-gallon double-walled urea storage tanks for emissions control purposes. However, with existing trees, the stacks would only be directly visible from the subject property and Matlack Road.

The generators would have sound-attenuating steel enclosures. These enclosures would be designed to withstand a category three hurricane. A 30,000-gallon double-walled fuel tank would be installed at the site to supply the generators. In addition, each generator would have a 4,200-gallon fuel tank with a rupture basin for leak containment. In total, the fuel supply at the site would provide roughly three days of run time at full load. CMEEC's Network Operation Center would monitor the generators remotely 24/7.

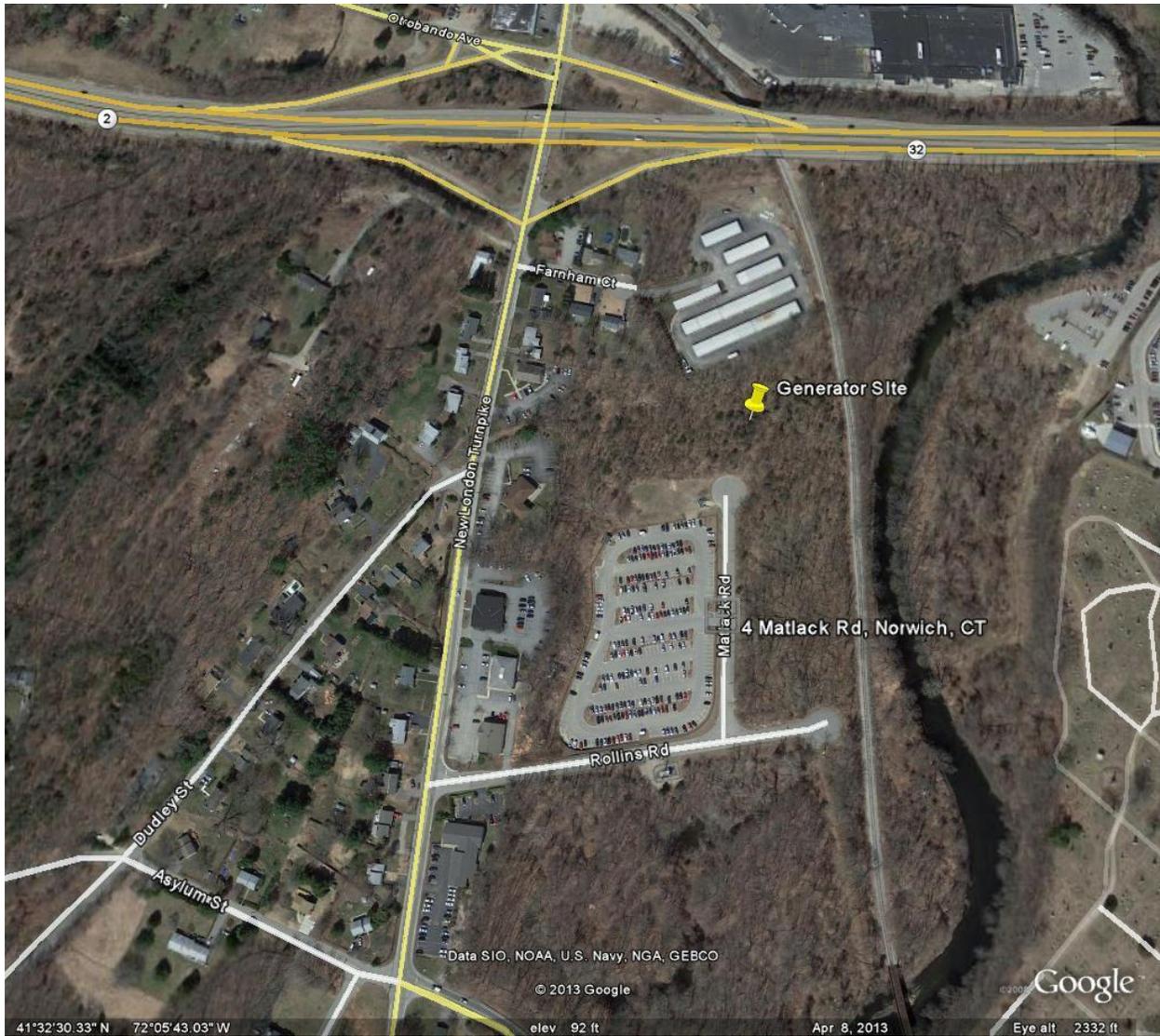
The generators and related equipment would be located in a fenced compound approximately 246 feet long and approximately 136 feet wide at the widest point. Access would be from the end of the Matlack Road cul-de-sac over a proposed paved driveway extending about 70 feet to the compound. CMEEC plans to develop a spill prevention control and counter measure plan incorporating best management practices for storage, handling, and management of oil and hazardous materials. Erosion and sediment controls will be placed around all construction and installation work.

The non-Council jurisdictional 13.8 kV electrical line from the generators to WWBH was originally planned to be underground. Absent the funding from the grant award, the generation project is proposed to have an overhead 13.8 kV electrical interconnection with NPU's electrical distribution system. While the level of reliability for overhead is not the same as underground, the complete project would still be considered a microgrid.

This petition was field reviewed by Council member James J. Murphy, Jr. and Michael Perrone of the Council staff on July 24, 2013. Four representatives of CMEEC attending the field review: Michael Rall Project Manager; Robin Kipnis, General Counsel; Thomas Solinsky, Director Asset Management; and Drew Rankin, CEO. One representative of Norwich Public Utilities also attended the field review: Mark Greene, Operations Integrity Manager.

Notice of the petition was provided to abutting property owners on June 26, 2013. To date, no comments from abutters have been received. Notice of the petition was provided to the City of Norwich on June 28, 2013. The City of Norwich supports this microgrid project.

CMEEC contends –and respectively requests the Council to determine– the proposed project is a customer-side distributed resource with a capacity of not more than sixty-five megawatts that will meet air and water quality standards of the Department of Energy and Environmental Protection and will not have a substantial adverse environmental effect.



**General Location of Generator Site in Norwich**



**End of Matlack Road Cul-de-sac.**

**The generator compound would be located approximately 70 feet into the wooded area.**